

REMARKS

Applicant respectfully requests reconsideration and allowance of the present application based on the foregoing amendments and following remarks. By this amendment, Claim 19 has been amended to correct an antecedent issue. Claims 1, 3-6, 8 and 17-20 are pending in the application. No claims have been canceled, and no new claim has been added

Applicant thanks the Examiner for indicating the acceptance of the drawings.

Claim Rejections under 35 USC § 101

Claims 1, 3-6, 8 and 17-20 stand rejected under 35 U.S.C. § 101 for allegedly being directed to non-statutory subject matter. In particular, the Examiner alleges that “It is unclear where the process recited is being tied to another statutory class such as a particular apparatus where the use of the machine involves more than insignificant extra-solution activity or where the process discloses transforming the underlying subject matter to a different state or thing.” Applicant strongly disagrees with the Examiner’s position at least for the following reasons.

The preamble of the independent Claim 1 clearly states that the method involves an incoming spread spectrum signal received by a GPS receiver. A GPS receiver is a device, and hence, belongs to a statutory class. Therefore, the method of Claim 1 is unambiguously tied to a statutory class.

Without further elaboration from the Examiner, Applicant believes that the phrase “more than insignificant extra-solution activity” has been interpreted too narrowly by the Examiner. In *In re Bilski*, 545 F.3d 943, 88 U.S.P.Q.2d 1385 (Fed. Cir. 2008), the Court of Appeals for the Federal Circuit (CAFC) has provided some explanation of what constitutes mere “insignificant extra-solution activity.” For example, the CAFC Bilski decision referred to *In re Schrader*, 22 F.3d 290, 294 (Fed. Cir. 1994), where a simple recording step in the middle of the claimed process was deemed incapable of imparting patent-eligibility under §101. In a second example, the CAFC Bilski decision referred to *In re Grams*, 888 F. 2d 839-40, (Fed. Cir. 1989), where a pre-solution step of gathering data was deemed incapable of imparting patent-eligibility under §101.

Applicant asserts that, contrary to the mere recording and data gathering examples above, the present Application clearly meets the requirement of patent-eligibility under §101, because each step of the claimed method performs a substantive activity directed to reduction of number of calculations required to correlate an incoming spread spectrum signal received by a GPS receiver encoded with a pseudorandom code. In particular, the step of using the data slice to look up a corresponding accumulation value in the at least one table during the correlation process to determine when a locally generated pseudorandom code and the incoming received pseudorandom code are correlated explicitly requires a GPS receiver, and is integrally related to the other steps, as well as to the claimed overall process of reduction of number of calculations.

Still further, the specification adequately addresses the fact that the standard components of a GPS receiver, well-known in the art, can be configured to perform the steps of the method recited in independent Claim 1. For example, in the ‘Summary of the Invention’ section, lines 8-9, the original specification says, “The present [invention] can be implemented in standard circuitry.” The ‘Conclusion’ section, lines 13-15 further says, “As such, the present invention allows for receiver implementations that are of lower cost and lower power consumption, while achieving the same functionality as the standard receiver topology.” Applicant asserts that persons skilled in the art are likely to understand how each step of the method in Claim 1 and its dependent claims is tied to standard GPS receiver components, and how significant inventive activity is being performed in each step.

Therefore, at least for the above reasons, Applicant respectfully requests the 35 U.S.C. §101 rejection be withdrawn.

Claim Rejections under 35 USC § 112

Claim 20 is rejected under 35 U.S.C. §112, second paragraph, as being indefinite because of an antecedent issue. Applicant has amended Claim 20 to correct dependency, correcting the antecedent basis. Applicant believes that the amended Claim 20 should overcome the 35 U.S.C. §112, second paragraph rejection.

Claim Rejections under 35 USC § 103

Claims 1, 3-6, 8 and 17-20 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,370,208 to Kuo (“Kuo”) in view of U.S. Patent No. 6,285,655 to Lundby et al. (“Lundby”) and further in view of U.S. Patent No. 6,650,879 to Underbrink (“Underbrink”). For reasons set forth more fully below, these rejections are respectfully traversed.

Applicant restates and incorporates herein by reference all of the previous remarks and arguments against the pending rejections. For convenience, Applicant’s present response will focus as much as possible on the Examiner’s views included in the ‘Response to Arguments’ section of the current Office Action (Pages 2-3).

According to the Examiner’s interpretation, Kuo’s “codes are the partial accumulations in that they are repeated in a correlation process of the spread spectrum signal.” However, in taking this position, the Examiner has completely ignored the fact that the sequence of operation in Kuo is entirely different from that in the present invention, rendering Kuo’s codes different from the partial accumulations as defined in the present Application. Kuo discloses first *identifying locations for which a corresponding set of element values for all the codes are equivalent*; then *aggregating the portions of the signal at the locations identified as having equivalent element values*; followed by *performing correlation function on the aggregated portions to demodulate the signal*. See, for example, column 2, line 66 to column 3, line 4 of Kuo. Thus, Kuo’s codes comprise identifying repetitive data prior to the correlation process.

Contrary to Kuo’s sequence of operation, independent Claim 1 of the present invention recites, “determining, for the spread spectrum signal, partial accumulations that are repeated in a correlation process of the spread spectrum signal using a data slice of the spread spectrum signal made up of in phase (I) signal data and quadrature phase (Q) *signal data correlated with pseudorandom codes[.]*” Clearly, in the present application, the correlation process takes place prior to identifying partial accumulations. Therefore, Kuo’s pre-correlation codes can not possibly be equivalent to the post-correlation partial accumulations recited in Claim 1.

Applicant has previously amended the independent Claim 1 to patentably distinguish Claim 1 from Kuo. However, the Examiner appears to have completely overlooked that Kuo nowhere explicitly or implicitly teaches “wherein the data slice of the spread spectrum signal includes a plurality of data bytes and a plurality of pseudorandom code bytes,” as recited in

Claim 1. The Examiner has not even attempted to address the feature of using a data slice, as defined and claimed in the present Application.

As demonstrated in this response and the respective responses to the previous Office Actions, Kuo fails to teach or suggest at least some features of independent Claim 1. The secondary reference Lundby is applied primarily to teach separating received signal into I and Q components, and the secondary reference Underbrink is applied to teach a personal communication device with a GPS receiver that can process CDMA signals. Therefore, the secondary references Lundby and Underbrink, in any possible combination with Kuo, fail to cure the deficiency of Kuo, as discussed above.

Accordingly, for at least these reasons, independent Claim 1 distinguishes over the combination of Kuo, Lunby, and Underbrink.

Claims 3-6, 8, and 17-20 depend from independent Claim 1. Accordingly, Applicant respectfully submits that Claims 3-6, 8 and 17-20 distinguish over the combination of Kuo, Lunby, and Underbrink for the same reasons set forth above with respect to independent Claim 1.

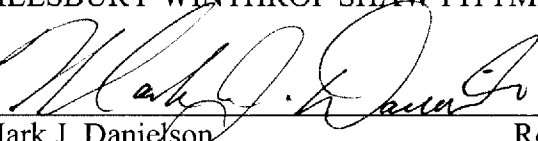
Therefore, Applicant respectfully requests withdrawal of all pending 35 U.S.C. §103(a) rejections.

Conclusion

All objections and rejections having been addressed, it is believed that the claims are in condition for allowance, and Notice to that effect is earnestly solicited. If any issues remain which the Examiner feels may be resolved through a telephone interview, s/he is kindly requested to contact the undersigned at the telephone number listed below.

Respectfully submitted,
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Date: April 29, 2010


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